BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
UTILITIES COMMISSION

DOCKET NO. 2015-53-E

IN RE: Application of Duke Energy Progress, Incorporated to Establish a Distributed Energy Resource Program	)	**DIRECT TESTIMONY OF JUSTIN R. BARNES ON BEHALF OF THE ALLIANCE FOR SOLAR CHOICE**

APRIL 28, 2015

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Exhibit JRB-1

I. Introduction

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION.

A. Justin R. Barnes, 401 Harrison Oaks Blvd, Suite 100, Cary, North Carolina, 27513. My current position is Policy Research Manager with EQ Research LLC.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of The Alliance for Solar Choice ("TASC").

Q. HAVE YOU EVER TESTIFIED BEFORE THE SOUTH CAROLINA PUBLIC SERVICE COMMISSION?

A. Yes. I submitted pre-filed direct testimony and appeared to testify on behalf of TASC in Docket Number 2014-246-E ("DER/NEM Docket"). In that case, I addressed South Carolina's net metering policy within a national context.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND OCCUPATIONAL BACKGROUND.

A. I obtained a Bachelor of Science in Geography from the University of Oklahoma in 2003 and a Master of Science in Environmental Policy from Michigan Technological University in 2006. I was employed at the North Carolina Solar Center at N.C. State University for more than five years, where I worked on the *Database of State Incentives for Renewables and Efficiency (DSIRE)* project, and several other projects related to state renewable energy and efficiency policy. In my current position at EQ Research, I manage and

perform research for a solar regulatory policy tracking service, contribute as a researcher to standard policy service offerings, and perform customized research. My *curriculum vitae* is attached as **Exhibit JRB-1**.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to discuss several components of Duke Energy Progress, Inc.'s ("DEP" or the "Company") Distributed Energy Resource ("DER") program application and to suggest how those components could be improved to better accomplish the objective of supporting investment in customer-scale DER in South Carolina. For example, I discuss how the Solar Rebate program, as proposed, lacks transparency in how the Company will determine when to seek modifications to incentive levels. An alternate program design—one that TASC supports and proposes—is one based on predetermined rebate level steps that decline when capacity benchmarks are met by incentive reservations. This gives the utility the ability to plan around a pre-determined budget, links higher uptake of solar to a reduced need for incentives to encourage additional growth, and provides developers and installers greater certainty in making long-term business plans that account for transparent incentives.

Additionally, I address how the proposal to meet the 25% Requirement for small-scale solar—by allowing subscriptions to the Shared Solar program of under 20 kW to count toward that goal—does not appear to be consistent with

the purpose of the statute and the Settlement Agreement to specifically support development of the market for solar facilities of less than 20 kW.

II. ACT 236 DER PROGRAM REQUIREMENTS

Q. PLEASE DESCRIBE THE RENEWABLE ENERGY CAPACITY TARGETS IN ACT 236.

A. Act 236 requires that the Company's DER application should lead to the development of renewable generation capacity equivalent to "at least two percent of the previous five-year average of the electrical utility's South Carolina retail peak demand."

The two percent requirement is broken into two capacity Tiers. For systems greater than 1 megawatt ("MW') but no greater than 10 MW, the Company's application is supposed to include "a plan to invest in or procure" renewable generation facilities located in the state equal to at least one percent of the previous five-year average of the Company's retail peak demand ("Tier 1 Requirement"). The Company's application is required to provide renewable generation capacity equal to at least another one percent of retail peak demand by establishing "a program… to encourage customers… to purchase or lease renewable energy facilities" with a nameplate capacity of no greater than 1 MW ("Tier 2 Requirement"). Within the Tier 2 Requirement, the Company must assure that it will encourage customers to purchase or lease renewable generation facilities, "**each** no greater than twenty kilowatts" in an amount

equal to at least twenty-five percent of the Tier 2 Requirement ("25% Requirement").

The statute provides that the Tier 2 Requirement may be satisfied using either of two approaches, including a combination of both. First, the requirement could be met by providing "an incentive to encourage residential customers of the electrical utility to purchase or lease renewable energy facilities in order to become an eligible customer-generator, as defined in Section 58-40-10." In other words, this suggests that DEP could offer an incentive to encourage customers to participate in net metering. Second, the Company could provide an incentive to customers to purchase or lease facilities no greater than 1 MW that are "intended primarily to offset part or all of an electrical customer's own electrical energy requirements."

Q. WHAT IS THE AMOUNT OF RENEWABLE ENERGY CAPACITY THAT DEP HAS PROPOSED TO MEET THE TARGETS SPECIFIED IN STATUTE?

A. DEP projects that 2% its five-year average retail peak demand results in a target DER program total of 27,000 kW-AC. According Witness Jose I. Merino, the DER capacity will be spread among two capacity tiers. DEP's application will result in approximately 13 MW of Tier I systems (i.e., systems that are at least 1 MW, but no greater than 10 MW) and 14 MW of Tier II systems (i.e., systems that are less than 1 MW). The difference in the targets is

attributable to the timing of the average peak demand projections. The Tier I target is based on a projection of 2012 – 2016 average peak demand, while the Tier II target is based on a projection of 2016 – 2020 average peak demand.

Q. HOW MUCH OF THE 2 PERCENT CAPACITY TARGET IS REQUIRED TO BE MET BY SYSTEMS OF 20 KW OR LESS?

A. Based on Witness Merino's discussion of the Tier II capacity goal of 14 MW, I would expect the application to result in approximately 3,500 kW-AC from systems that are 20 kW or less.

Q. DOES THE SETTLEMENT AGREEMENT REQUIRE UTILITY DER PROGRAMS TO INCLUDE SPECIFIC ELEMENTS ADDRESSING THE LESS THAN 20 KW SEGMENT?

A. Yes. The first subsection of Section III of the Settlement Agreement spells out a number of commitments to provide incentives to residential and small commercial customer-generators with systems sized 20 kW or less. To respect these commitments, the DER programs must include, among others, the following elements:

- (1.a) "an investment incentive (i.e., an up-front incentive or rebate) and/or a fixed, production-based incentive payment." ("Residential/Small Commercial DER Incentives").
- (1.b) sufficient "Residential/Small Commercial DER Incentives" to meet the "customer-generator adoption targets enumerated in S.C. Code § 58-39-130(C)(2)." And,
- (1.c) availability of "Residential/Small Commercial DER Incentives…to all qualifying customer-generators on a nondiscriminatory basis… up to a cumulative capacity no less than 25% of the Utility's previous five-year

average South Carolina retail peak demand, as defined by the Act."[1]

Q. WHAT ELEMENTS OF DEP'S PROPOSED DER PROGRAM ADDRESS THE 20 KW OR LESS SEGMENT?

A. As discussed by DEP Witness Emily F. Felt, the Company proposes that it be allowed to count the renewable capacity associated with both its Solar Rebate and Shared Solar programs towards the 25% Requirement.

Q. DOES DEP'S PROPOSAL TO MEET THE 25% REQUIREMENT APPEAR CONSISTENT WITH THE INTENT OF THE SETTLEMENT AGREEMENT?

A. No, not entirely. The Settlement Agreement's provisions on the utility's DER applications focus on "customer-generators." That term is defined by Act 236 to refer to a customer that has an onsite renewable generation facility that is configured to engage in net metering. Indeed, the Settlement Agreement primarily concerns the adoption of net metering rules and a valuation methodology to be used to assess the net metering program, so it is logical that any DER application filing requirements in the Settlement Agreement would address net metering customer-generators. Accordingly, DEP's Solar Rebate program appears to support the intent of the settlement to meet the 25% Requirement by encouraging customers to install onsite renewable energy systems and engage in net metering. However, as I discuss later in my testimony, DEP's proposal to count participation in its Shared Solar program

[1] Order No. 2015-194, Docket No. 2014-246-E, *Exhibit 1* (filed March 20, 2015). Subsections 1.g and 1.h are not repeated here as those do not present specific elements that must be included within the DER application.

towards the 25% Requirement is not consistent with the Settlement Agreement.

III. DEP'S SHARED SOLAR PROPOSAL

Q. PLEASE DESCRIBE DEP'S SHARED SOLAR PROPOSAL.

A. Participants in the Shared Solar program would pay an up front subscription fee of $100/kW and a monthly subscription fee of $6.25/kW in exchange for a monthly bill credit of 6.341 cents/kWh based on the customer's pro rata share of energy production from a Shared Solar facility. Subscriptions may last until the earlier of 10 years, or the expiration of the Shared Solar Rider (Rider SS) on December 31, 2028. A customer may terminate service under the program with 30 days notice after the first year of their enrollment. As stated in the testimony of DEP Witness Jose I. Merino, the amount of the bill credit is designed to yield energy cost savings to customers sufficient to result in a four-year payback period for the initial subscription fee. According to Witness Merino, the bill credit contains an embedded subsidy sufficient to increase the bill credit to an amount necessary to meet this payback period benchmark.

The Company's verified application proposed that the facilities serving the Shared Solar program be ground-mounted systems developed in increments of 1,000 kW. Witness Felt's testimony indicates that the first tranche of Shared Solar capacity would consist of 1,000 kW, which is expected to be in operation by December 31, 2016.

Q. DOES TASC SUPPORT DEP'S SHARED SOLAR PROPOSAL?

A. TASC does not oppose the Shared Solar program, but has serious concerns about the extension of the Shared Solar offerings to segments of the competitive market where onsite, rooftop solar might be an option. TASC proposes that the Shared Solar program should only be considered as part of the 25% Requirement at the end of 2020, in the event that the Solar Rebate program has not produced enough customer-generators with systems of 20 kW or less to satisfy the requirement.

One of TASC's concerns with using the Shared Solar program to count toward the 25% Requirement is that it allows large-scale solar projects to be artificially partitioned to represent small-scale projects. The intent of the 25% Requirement would appear to be to ensure that small-scale solar development, which has its own distinct market characteristics and distinct market participants, is included within the spectrum of economic activity spurred by Act 236. TASC is also concerned that it could create unnecessary complications in determining whether DEP has met, or is on track to meet the 25% Requirement because Shared Solar enrollment may fluctuate over time. This could create a "moving target" for determining outstanding resource needs, which in turn could also complicate the administration and operation of the Solar Rebate program. I elaborate on these concerns later in my testimony.

Q. WHAT TYPES OF RESIDENTIAL CUSTOMERS CAN PARTICIPATE IN THE SHARED SOLAR PROGRAM, AS PROPOSED BY DEP?

A. Any residential customer with a satisfactory payment record that is not served under the net metering rider or a purchased power agreement may enroll in the program.

Q. DOES TASC OPPOSE ALLOWING RESIDENTIAL CUSTOMERS TO SUBSCRIBE TO A SHARED SOLAR FACILITY?

A. No. TASC agrees with the Company that there can be situations where installing an onsite solar facility is not an option for a particular residential customer. However, DEP's proposal lacks any meaningful boundaries on participation and could lead to the Shared Solar proposal cannibalizing demand from the combination of the Company's net metering and Solar Rebate programs.

Q. WILL DEP DIFFERENTIATE BETWEEN RESIDENTIAL CUSTOMERS THAT COULD OTHERWISE PARTICIPATE IN THE SOLAR REBATE PROGRAM TO INSTALL ONSITE SOLAR?

A. No, it does not appear that they have ready access to the information needed to make that differentiation. The Company is effectively opening the Shared Solar program to all residential customers.

Q. WHAT ARE SOME OF THE DIFFERENCES FROM A CUSTOMER'S PERSPECTIVE BETWEEN PARTICIPATING IN A SHARED SOLAR PROGRAM AND UTILIZING THE SOLAR REBATE PROGRAM?

A. There are several key differences. First, a customer participating in the Shared Solar program may only do so for a maximum of 10 years, meaning that the participant may only benefit from any energy cost savings provided under the program for 10 years. In contrast, a participant in the Solar Rebate program will have purchased or leased a solar facility and may continue to benefit from the energy produced by a solar system for the life of the system or for the entire term of the lease. Though there are many iterations of lease offerings, a 20-year term is standard.

Second, and relatedly, the Shared Solar program requires a lesser commitment on the part of the participant because the participant may terminate enrollment at any time after one year of service, and may expect to be able to recoup the initial subscription fee within four years. In contrast, a customer receiving the Solar Rebate is expected to be operational for at least five years, and may have to pay an early termination fee if the system becomes inoperable or is removed. In addition, participants in the Solar Rebate program make a much longer-term and more significant financial commitment, in the form of a longer-term lease or the purchase of a long-lived system that may continue to operate for more than 20 years.

Third, the Shared Solar program is designed with an embedded subsidy to yield a relatively short payback period of 4 years. As described by DEP

Witness Merino, the Solar Rebate program does not contain any equivalent assurance or design consideration. Instead, the initial amount of the rebate has been established to approximate a pre-defined percentage of the projected total up front investment associated with the installation of a small solar facility.

Collectively, these differences result in a meaningfully different risk-reward calculation for a customer. Under the Shared Solar program, the participant experiences very little risk, insofar as the initial investment is small and energy cost savings are effectively guaranteed to yield a short payback and some modest amount of bill savings thereafter. A Solar Rebate program participant must make a much larger investment or commitment in the form of a long-term lease. In return, the Solar Rebate customer receives an energy cost savings benefit that is *potentially* larger and of a longer duration, but is not guaranteed in any form and is subject to risks that are beyond the participant's control.

Q. PLEASE ELABORATE ON THE SIGNIFICANCE OF THE MAXIMUM 10-YEAR TERM OF A SHARED SOLAR PROGRAM ENROLLMENT FOR PARTICIPANTS.

A. The maximum enrollment term effectively limits the benefits to participants. While it is not entirely clear from DEP witnesses' testimonies what will take place at the end of the enrollment term for the Shared Solar program, it appears that the customer may be ineligible for further participation in the program and will forfeit his or her subscribed capacity to the Company or other participants.

There is no apparent option for the participant to retain any rights to the subscribed capacity, forcing them to return to the status quo of standard utility service without any monetary bill credit to offset the overall bill. Depending on the time frame of the term expiration or a customer's election to terminate of Shared Solar service, a Shared Solar customer might miss out on the opportunity to participate in the Solar Rebate program or retail net metering, as provided under the Settlement Agreement.

Q. IS THE SUBSIDY EMBEDDED IN THE SHARED SOLAR CREDIT EQUIVALENT TO THE INCENTIVES THAT MAY BE RECEIVED BY SOLAR REBATE PROGRAM PARTICIPANTS?

A. It is not possible to answer this question with the information currently available in the Company's DER Application or witnesses' testimonies. However, it is clear that the embedded subsidy in the Shared Solar program was calculated in an entirely different manner than the Solar Rebate amount. In light of this fact, it would be purely coincidental if they were equivalent to one another.

Q. IS THERE A SOUND BASIS FOR PROVIDING DIFFERENTIAL INCENTIVES IN THE TWO PROGRAMS?

A. Yes, to some degree. As I've previously noted, the programs have a profoundly different risk-reward profile for participants, so the minimum incentive necessary to encourage participation in one will almost certainly be different than the other. Further, the programs are subject to different requirements

under the terms of Act 236 and the Settlement Agreement, specifically the 25% Requirement for customer-generator facilities of 20 kW or less. In my view, the different risk-reward profiles of the two programs makes the carve out in Act 236 for small-scale solar facilities (i.e., 25% Requirement) even more meaningful. It is intuitive that there is a difference between what it takes to encourage temporary customer participation in a large-scale solar project and what it takes to encourage a customer to make a more long-term and consequential decision purchase or lease a small-scale solar facility; a facility that will be physically located on their premises and their responsibility to properly operate and maintain.

IV. DEP'S SOLAR REBATE PROPOSAL

Q. PLEASE DESCRIBE DEP'S SOLAR REBATE PROPOSAL.

A. The Company proposes to offer up front incentives to residential and non-residential customers that install onsite solar facilities on or after January 1, 2015. The incentives are limited to residential systems of 20 kW or less and non-residential systems of 1,000 kW or less. The initial incentive levels are proposed at $1.00/W for residential systems and $0.75/W for non-residential systems, but are subject to periodic adjustments at the discretion of DEP and the Commission. The Company also proposes to limit the aggregate amount of enrollment in the program during any given year to 1,500 kW.

Q. DOES TASC SUPPORT DEP'S SOLAR REBATE PROPOSAL?

A. Generally, TASC does support DEP's approach to its Solar Rebate program. However, TASC has several concerns regarding program design and suggests several specific modifications to make DEP's proposal more transparent and more effective in serving customer demand for onsite solar power.

Q. WHAT MODIFICATIONS TO DEP'S SOLAR REBATE PROPOSAL DOES TASC PROPOSE?

A. TASC has three primary modifications that are necessary to support and sustain market growth. First, TASC proposes that the incentive levels for the entire program be set at the outset, to provide transparency to the market and to consumers. TASC proposes that these set incentive levels be phased to decline as participation increases. Second, TASC proposes that the Solar Rebate Program be made available on a first-come, first-served basis without any annual capacity limits. Third, TASC proposes that the rebate payment be explicitly assignable by the customer to the installer or system owner (e.g., lessor) to make participation for customers as simple as possible.

Q. WHY IS IT IMPORTANT THAT INCENTIVE LEVELS FOR THE LIFE OF THE PROGRAM BE TRANSPARENT NOW?

A. Transparent incentive designs promote market certainty, allowing companies to intelligently make long-term planning decisions such as hiring and infrastructure investments necessary to provide reliable, high-quality service to customers. Utility discretion regarding the timing and amount of incentive changes—subject to PSC approval—undermines this certainty and the ability

of solar providers to make long-term plans. If economic development is one aim of the DER program, it is reasonable to utilize a declining rebate structure that is known to all parties now. This would be similar to what has worked in other successful solar markets.

Moreover, lack of a clear roadmap for the incentive structure could create unnecessary customer confusion and involve inefficient administrative expense for DEP, intervenors, and the Commission. Customers need to have some comfort level that they can trust the availability of incentives that are informing a decision to purchase or lease an onsite solar facility. The prospect that DEP might file to reduce or increase incentives can create hesitancy and insert another variable into the timing of the customer's decision. For interested parties that will participate in a Commission proceeding considering modifications to rebate levels, the prospect of expending resources for further regulatory participation seems unnecessary where the rebate structure and rules of the road could be established by the Commission at the outset. For those reasons, TASC supports establishing an incentive structure that provides upfront certainty and transparency in the "rules of the road" going forward.

Q. WHAT IS THE ADVANTAGE TO SETTING CAPACITY TRIGGERS TO REDUCE INCENTIVES BY A PREDETERMINED AMOUNT?

A. A capacity trigger approach provides an automatic, transparent adjustment to incentives that is directly responsive to prevailing market conditions and apart

from the initial setting of the incentive level. Moreover, adjustments to incentives based on capacity triggers are not reliant on subjective judgments of market behavior under different incentive scenarios. In this manner, the capacity triggers avoid administrative costs associated with devising and receiving approval of subsequent modifications, as well as the potential market upset caused by sudden, unpredictable changes. Finally, the capacity triggers also make program budgets and incentive expenditures entirely predictable, allowing administrators, regulators and ratepayers to know future costs with a high degree of precision.

Q. WHY DOES TASC PROPOSE THAT DEP'S ANNUAL CAPACITY LIMITS FOR THE SOLAR REBATE PROGRAM BE REMOVED?

A. DEP recognizes the importance of the federal ITC when it comes to its Shared Solar proposals and to the RFP for larger systems. By forcing the capacity to be staggered over the five-year life of the DER program period, DEP would effectively be giving preferential treatment to programs that are designed to encourage larger systems that do not provide electricity for onsite consumption. This will deter the full potential of the market for small, onsite solar facilities that would likely be used to serve some part of customers' onsite load. By structuring the program to limit the total capacity installed in a single year, DEP is determining that potentially up to 60% of the customer-scale solar projects will have to be developed without the advantage of federal

tax benefits to the detriment to potential participants. This will hinder DEP's ability to meet the 25% Requirement for systems of 20 kW or less.

If the purpose of capacity limits is to prevent oversubscription due to rebates being higher than necessary to spur investment, TASC's proposal to set capacity triggers and predetermined incentive reductions should alleviate those concerns and allow the entirety of the addressable market take advantage of the full 30% ITC and the Company's rebates. Further, the elimination of annual enrollment limits will support the Company's ability to meet the 25% Requirement in a timely manner without resorting to including Shared Solar participants towards the target.

Q. WHY IS IT IMPORTANT TO THIRD-PARTY OWNERS OR INSTALLERS OF A CUSTOMER'S SOLAR FACILITIES TO BE ABLE TO DIRECTLY RECEIVE THE SOLAR REBATE?

A. Allowing a third-party developer to directly receive the incentive makes the program process simpler for both customers and program administrators. From a customer's perspective, it is preferable to have the incentive amount reflected in the purchase or lease price, because it means that they will not have to make a larger initial expenditure and then have to wait for reimbursement, or have to undertake an added step of signing over the incentive to a provider once they receive it.

From a program administrator's standpoint, direct assignment reduces the number of incentive "counter-parties", such that where questions or disputes arise, the administrator will be communicating with an entity that is already intimately familiar with program processes, and is well-equipped to answer questions or provide additional information as necessary. One element of a solar provider's service to customers is its ability to guide them through the various items of paperwork and processes associated with the installation. It is unnecessary and inadvisable to remove the solar provider from the process at one of the critical points, the issuance of a rebate, and force the customer to fend for himself or herself.

An incentive assignment option is a feature of many prominent solar energy and energy efficiency incentive programs throughout the country. In fact, perhaps recognizing the advantages, Duke Energy Carolina's Smart $aver commercial energy efficiency program allows a customer to assign payment of a rebate directly to a vendor.[2] TASC understands that DEP intends for rebates to be claimed by the lessor or owner of a customer's onsite solar facility and supports further clarification from DEP to make this feature an explicit part of their Solar Rebate program forms and agreements.

V. DEP PROPOSAL TO MEET THE "25% REQUIREMENT"

[2] Duke Energy Carolinas. 2014. *DEC Smart $aver South Carolina Heating and Cooling Equipment Incentive Application.* Available at: http://www.duke-energy.com/pdfs/SC_HVAC.pdf

Q. DOES DEP BELIEVE THAT THE DER NEM INCENTIVE, ALONE, IS SUFFICIENT TO INCENTIVIZE ENOUGH CUSTOMERS TO INSTALL DER CAPACITY TO MEET THE "25% REQUIREMENT?"

A. No. While not specific to the 25% Requirement, the Company's analysis and associated testimony from DEP Witness Merino indicates a belief that net metering alone will not be sufficient to achieve the level of growth necessary to meet the 2020 Tier 2 requirement of 1% of five-year average peak load from systems of 1 MW or less.

Q. DO YOU AGREE WITH DEP'S ASSESSMENT THAT NET METERING, ALONE, IS INSUFFICIENT TO MEET THE "25% REQUIREMENT?"

A. Yes. Based on the historical growth in installations under full retail net metering, it is evident that additional incentives are necessary to achieve the growth needed to meet the 25% Requirement. While TASC does not have access to complete data on net metering growth in DEP's South Carolina territory, DEP's annual net metering reports in Commission Docket No. 2005-385-E do not suggest net metering enrollment is growing rapidly enough to meet the 25% Requirement without the provision of additional incentives.

Q. HAS DEP DEMONSTRATED THAT NET METERING PLUS THE SOLAR REBATE WILL BE INSUFFICIENT TO MEET THE "25% REQUIREMENT?"

A. No. While DEP Witness Felt testifies that "a very small fraction of the

Company's South Carolina retail customers have the income, wealth, credit score, home, and roof to support a solar investment on-site", the basis for this assertion is entirely unclear, making it impossible to independently evaluate the assumptions.

Q. WHY DOES DEP SUGGEST THAT IT NEEDS CAPACITY INSTALLED UNDER THE SHARED SOLAR PROGRAM TO COUNT TOWARD THE "25% REQUIREMENT?"

A. DEP Witness Felt testifies that the 25% Requirement for systems of 20 kW or less is "the most difficult to achieve" and uses this perceived difficulty as the rationale for using Shared Solar facilities to meet the 25% Requirement. As previously noted, the analytical basis for this assertion is not laid out in the Company's testimony, thus is it not clear precisely why DEP believes this to be the case.

Q. DO YOU THINK ALLOWING SHARED SOLAR SUBSCRIPTIONS TO MEET THE "25% REQUIREMENT" IS CONSISTENT WITH THE SETTLEMENT AGREEMENT?

A. No. As previously I've previously noted, Section 1.c of the Settlement Agreement requires DEP to provide DER incentives to *customer-generators* with production of 20 kW or less until the cumulative capacity reaches the 25% benchmark. Shared Solar participants are by definition *not* customer-generators, as Act 236 requires that a customer-generator generation unit must among other things be "located on a single premises owned, operated, leased,

or otherwise controlled by the customer."[3] In effect, a customer-generator is a net metering customer and, in fact, DEP's proposed Shared Solar tariff (Rider SS) contained as an Exhibit to its DER Application, expressly states that the program "is not available for customers served under a net metering rider". Under the terms of the Settlement Agreement DEP is not permitted to count Shared Solar participation towards the 25% Requirement because doing so could cause it to stop offering DER incentives to residential and small commercial customer-generators prior to meeting the 25% Requirement.

Q. ARE THERE ANY OTHER REASONS WHY ALLOWING SHARED SOLAR PARTICIPATION TO COUNT TOWARDS THE 25% REQUIREMENT IS INADVISABLE?

A. Yes. Provisions of this type recognize that small onsite systems have unique benefits to customers and are subject to obstacles and barriers different from those associated with larger systems. Allowing portions of a much larger system to qualify as "small" for the purposes of the target makes the 20 kW limitation meaningless. It also creates a continually moving target in the context of determining whether the Company has met the requirement, as participants move into and out of the program or change their subscription levels. Whereas a system that in itself is sized at 20 kW or less is in most cases a permanent addition to the tally of progress towards the requirement, a similar level of certainty is not possible for Shared Solar contributions.

[3] S.C. Code §58-40-10(C)(3)

Lastly, it is unclear whether meeting the 25% Requirement with the Shared Solar program will cause the Company to modify its Residential Solar Rebate level to reflect the fact that it does not need additional capacity from systems less than 20 kW to meet that target. If the Company does eliminate the need for a higher residential rebate (based on the logic that the 25% Requirement is driving a higher rebate level for residential systems), the inherent ability of subscribed Shared Solar capacity amounts to fluctuate could complicate the administration of the Solar Rebate program by presenting ever-changing goal posts for the 25% Requirement.

Q. PLEASE SUMMARIZE YOUR CONCERNS ABOUT HOW DEP'S OVERALL SHARED SOLAR AND SOLAR REBATE PROGRAM PROPOSALS MAY IMPEDE ITS ABILITY TO MEET THE "25% REQUIREMENT".

A. As I have previously noted, the Company proposes to limit annual enrollment in the Solar Rebate program, and in doing so effectively proposes to slow solar installation growth, including the growth in the installation of small systems. At the same time, it raises concerns that this same growth may be insufficient to meet the 25% Requirement for small customer generator systems, so as to justify counting Shared Solar participants towards that requirement. This somewhat circular logic could create a self-fulfilling prophecy.

The Solar Rebate is clearly an appropriate and straightforward means of satisfying the 25% Requirement in a manner consistent with statute. The proposal to allow qualifying Shared Solar capacity to meet this requirement rests on the Commission's discretion and willingness to interpret the statute and intent of the Legislature in this manner. By seeking to pursue all residential customers through the Shared Solar program at the outset—including those that own their residence and otherwise have the ability to install onsite solar—DEP is prejudging (and could actually be undermining) the ability of the market to translate customer demand for solar into the type of DER facilities the Legislature intended.

DEP has a natural advantage as the incumbent provider to reach its customers first to market the Shared Solar program. A customer that is interested in solar and decides to enroll in the Shared Solar program DEP markets, may not be aware of or fully understand the offerings available in the competitive market at the time they enroll. In this way, it is foreseeable that customers with an interest in "going solar" could enroll before they understand their complete options and miss their window of opportunity to purchase or lease an onsite facility of less than 20 kW.

Q. DOES TASC HAVE A PROPOSAL IN REGARDS TO THE SHARED SOLAR PROPOSAL?

A. Yes. TASC would propose that capacity subscriptions of less than 20 kW

should only count toward meeting the "25% Requirement" if the net metering program and the Solar Rebate program have been given a chance to work and have failed to produce sufficient customer-generator capacity by the end of 2020. Along these lines, TASC suggests that the Company should first attempt to work collaboratively with developers and marketers to find ways to fulfill this goal. Such efforts should be exhausted before resorting to a stopgap measure to count small subscriptions to large-scale solar facilities. That result is not aligned with either the letter or the spirit of Act 236.

VI. CONCLUSION

Q. PLEASE SUMMARIZE TASC'S PROPOSED MODIFICATIONS TO DEP'S SHARED SOLAR AND SOLAR REBATE PROGRAMS.

A. TASC proposes that DEP's Shared Solar and Solar Rebate programs be modified as follows:

1) Shared Solar participation should only be permitted to count towards the 25% Requirement if the net metering and Solar Rebate programs fail to produce sufficient customer-generator capacity of 20 kW or less by the end of 2020;
2) The Solar Rebate program should use a pre-defined declining block incentive schedule without annual enrollment limits; and
3) To the extent that the Company does not already plan to do so, the Solar Rebate program should allow incentives to be assigned directly to solar facility owners, including the lessors of such systems.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.